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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/038,080	01/03/2002	Peter C. Isakson	2891/3 (PHA 4142.2)	7358

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SENNIGER POWERS LEAVITT AND ROEDEL  
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ST LOUIS, MO 63102

EXAMINER

EPPERSON, JON D

ART UNIT	PAPER NUMBER
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1639

DATE MAILED: 11/21/2002

9

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary***File Copy*

Application No.

10/038,080

Applicant(s)

ISAKSON ET AL.

Examiner

Jon D Epperson

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 September 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) 5 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4, 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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### DETAILED ACTION

**Please note:** The Group and/or Art Unit location of your application in the PTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to **Group Art Unit 1639**.

**Please note:** The Examiner respectfully requests an updated copy of all outstanding claims.

#### *Status of the Application*

1. Receipt is acknowledged of a Response to a Restriction Requirement and Amendment, which was dated on September 9, 2002 (Paper No. 8).

#### *Priority Claims*

2. The priority filing date of June 12, 1995 for application 08/489,415 is acknowledged.

#### *Status of the Claims*

3. Claims 1-9 are pending in the present application.
4. Please note: Applicant's *specifically* elected species (see Paper No. 8, page 5) was searched and was not found in the prior art. Thus, the search was expanded to non-elected species, which *were* found in the prior art, see rejections below. Also, see MPEP § 803.02 (emphasis added):

On the other hand, should no prior art be found that anticipates or renders obvious the elected species, the search of the Markush-type claim will be extended. If prior art is then found that anticipates or renders obvious the Markush-type claim with respect to a nonelected species, the Markush-type claim shall be rejected and claims to the nonelected species held withdrawn from further consideration. *The prior art*

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*search, however, will not be extended unnecessarily to cover all nonelected species.* Should applicant, in response to this rejection of the Markush-type claim, overcome the rejection, as by amending the Markush-type claim to exclude the species anticipated or rendered obvious by the prior art, the amended Markush-type claim will be reexamined. The prior art search will be extended to the extent necessary to determine patentability of the Markush-type claim. In the event prior art is found during the reexamination that anticipates or renders obvious the amended Markush-type claim, the claim will be rejected and the action made final. Amendments submitted after the final rejection further restricting the scope of the claim may be denied entry.

5. Claim 5 is withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected species (see below i.e., *Response to Restriction and Election of Species without Traverse*).

6. Therefore, claims 1-4 and 7-9 are examined on the merits in this action. Please note that claims 1-4 and 7-9 are only examined to the extent of the elected species and/or subject matter (see MPEP § 803.02).

#### ***Response to Restriction and Election of Species without Traverse***

7. Applicant's election of species in Paper No. 8 is also acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election of species has also been treated as an election without traverse (MPEP § 818.03(a)).

8. As a result, the restriction requirement and/or election of species is still deemed proper and is therefore made FINAL.

***Information Disclosure Statement***

9. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98 (b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, “the list may not be incorporated into the specification but must be submitted in a separate paper.” Therefore, unless the references have been cited by the examiner on the form PTO-892, they have not been considered.

10. The references listed on applicant’s PTO-1449 form have been considered by the examiner. A copy of the form is attached to this Office Action.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

11. Claims 1-2, 6-9 are rejected under 35 USC 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicant is directed to the Guidelines for the Examination of Patent Applications Under the 35 USC 112, ¶ 1 “Written Description” Requirement, Federal Register, Vol. 66, No. 4 pages 1099-1111, Friday January 5, 2001. This is a written description rejection.

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These are genus claims. For example, claim 1 discloses a “therapeutically-effective” combination of a “cyclooxygenase-2 inhibitor” and a “leukotriene B<sub>4</sub> receptor antagonist.” The scope of this claim includes an infinite number of “combinations” of an infinite number of “cyclooxygenase-2-inhibitors” and an infinite number of “leukotriene B<sub>4</sub> receptor antagonists” wherein no distinguishing structural attributes are provided for either the “cyclooxygenase-2-inhibitor” or the “leukotriene B<sub>4</sub> receptor antagonist.” The specification and claims do not place any limit on the number of atoms, the types of atoms, or the manner in which said atoms might be connected to form either the “cyclooxygenase-2-inhibitor” or the “leukotriene B<sub>4</sub> receptor antagonist.” Although the specification discloses many possible examples for both the “cyclooxygenase-2-inhibitor” and the “leukotriene B<sub>4</sub> receptor antagonist” and there are many examples known in the literature (see Claims 2-9, pages 5-12; see also 35 USC 102/103 rejections below), the specification and claims do not provide any guidance as to what structural features all of these compounds share. Consequently, it is not possible to determine *a priori* which compounds would be “leukotriene B<sub>4</sub> receptor antagonist” or “cyclooxygenase-2-inhibitors” because there is no common structural attributes that can link together all of the compounds i.e., the “leukotriene B<sub>4</sub> receptor antagonists” or the “cyclooxygenase-2-inhibitors.” There is no teaching that would allow a person of ordinary skill in the art to determine *a priori* all the different types of compounds that should be included in this genus from the examples provided by applicants.

The general knowledge and level of skill in the art do not supplement the omitted description because specific, not general, guidance is what is needed. Since the disclosure fails to describe the common attributes or characteristics that identify all of the members of the genus

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or even a substantial portion thereof, and because the genus is enormous and highly variant, listing examples Taisho NS-398, Merck MK-966, etc. that are known in the literature (see specification, claim 2) is insufficient to teach the entire genus. Thus applicants' claimed scope represents only an invitation to experiment regarding other possible "leukotriene B<sub>4</sub> receptor antagonists" and "cyclooxygenase-2-inhibitors." Consequently, one of skill in the art would reasonably conclude that the disclosure fails to provide a representative number of species to describe this enormous genus. Thus, applicant was not in possession of the claimed genus.

12. Claims 1-4 and 6-9 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for providing a combination of selected cyclooxygenase-2 inhibitors and leukotriene B<sub>4</sub> receptors that are "therapeutically-effective" against "arthritis" (see specification, Example 3), does not reasonably provide enablement for any disease state. Consequently, the specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims. This is an enablement rejection.

There are many factors to be considered when determining whether there is sufficient evidence to support a determination that a disclosure does not satisfy the enablement requirement and whether any necessary experimentation is "undue". These factors include, but are not limited to:

- (1) the breadth of the claims;
- (2) the nature of the invention;
- (3) the state of the prior art;
- (4) the level of one of ordinary skill;
- (5) the level of predictability in the art;
- (6) the amount of direction provided by the inventor;

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- (7) the existence of working examples; and
- (8) the quantity of experimentation needed to make or use the invention based on the content of the disclosure.

See *In re Wands*, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988).

(1-2) The breadth of the claims and the nature of the invention: These claims are broad because they are drawn to “combinations” of compounds that are therapeutically effective against “any” disease including diseases that are completely unrelated in form and effect. Such represents very broad scope.

(3 and 5) The state of the prior art and the level of predictability in the art: Although cyclooxygenase-2 inhibitors and leukotriene B<sub>4</sub> receptor antagonists were known in the literature for treating prostaglandin-regulated processes at the time of filing (see Specification, Background of the Invention), the literature does not provide examples wherein these compounds are used separately or in conjunction to treat any disease. Furthermore, since the breadth of applicants’ claims would encompass any disease, the diseases encompassed would collectively affect diverse parts of the body, have very diverse mechanisms of harm and arise from unrelated organisms such as worms, flies, ticks and protozoa and humans. It would be contrary to medical understanding for such extremely diverse diseases to be generally treatable by a single agent or a combination of two agents, and there is indeed no agent or combination of agents, which can treat anything remotely resembling the scope of these broad claims.

(4) The level of one of ordinary skill: The level of skill would be high, most likely at the Ph.D. level.

(6-7) The amount of direction provided by the inventor and the existence of working examples: Applicants have provided one example for treating “arthritis” wherein a



combination of both a leukotriene B<sub>4</sub> receptor and a cyclooxygenase-2 inhibitor were used together (see specification, Example 3) and there are only a few known literature examples wherein the compounds are used together (see 35 USC 102 rejections below).

(8) The quantity of experimentation needed to make or use the invention base on the content of the disclosure: In claims 1-4 and 6-9, there is only a broad recitation that he claimed “combinations” of compounds will be “therapeutically-effective.” However, there is nothing in the specification that would teach one of ordinary skill in the art that these “combinations” of compounds would be therapeutically effective against any disease. As stated above, it would be contrary to medical understanding for such extremely diverse diseases to be generally treatable by a single agent or a combination of two agents, which would remotely resemble the scope of these broad claims. There must be sufficient disclosure, either through illustrative examples or terminology, to teach those of ordinary skill how to make and use the invention as broadly as it is claimed. *In re Vaeck*, 947 F.2d 488, 496 & n.23, 20 USPQ2d 1438, 1445 & n.23 (Fed. Cir. 1991). Therefore, it is deemed that further research of an unpredictable nature would be necessary to make or use the invention as claimed. Thus, due to the inadequacies of the instant disclosure one of ordinary skill would not have a reasonable expectation of success and the practice of the full scope of the invention would require undue experimentation.

***Claims Rejections - 35 U.S.C. 112, second paragraph***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

13. Claims 2-4 and 6-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. The phrase “wherein R<sup>1</sup> is at least one substituent selected from heterocyclyl, cycloalkyl, cycloalkenyl, [etc.]” in claims 1 is vague and indefinite. For example, it is not clear how R<sup>1</sup> could be “at least” one, which implies that R<sup>1</sup> could be “more than one” because there is only one bond attaching R<sup>1</sup> to A and, as a result, it would appear to the Examiner that R<sup>1</sup> could be “only” one. Are applicants claiming “more than one” substituent for R<sup>1</sup> and, if so, how does more than one R<sup>1</sup> substituent bind to A? Applicants are requested to clarify and/or correct. Therefore, claims 2 and all dependent claims are rejected under 35 U.S.C. 112, second paragraph.

B. Claims 2 and 9 are recited in improper Markush format. The claims read “wherein R<sup>3</sup> is ... selected from ... [A, B, or C].” The term “or” is indefinite and, as a result, it is not possible to determine the metes and bounds of this limitation. It is suggested to use standard Markush language; see MPEP 2173.05(h) concerning alternative expressions:

Alternative expressions are permitted if they present no uncertainty or ambiguity with respect to the question of scope or clarity of the claims. One acceptable form of alternative expression, which is commonly referred to as a Markush group, recites members as being “selected from the group consisting of A, B and C.” See *Ex parte Markush*, 1925 C.D. 126 (Comm’r Pat. 1925). When materials recited in a claim are so related as to constitute a proper Markush group, they may be recited in the conventional manner, or alternatively. For example, if “wherein R is a material selected from the group consisting of A, B, C and D” is a proper limitation, then “wherein R is A, B, C or D” shall also be considered proper.

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Therefore, claims 2 and 9 and all dependent claims are rejected under 35 U.S.C. 112, second paragraph.

C. Claims 6 and 7 are recited in improper Markush format. The claims read “wherein R<sup>3</sup> is selected from ... [A, B, and C or D].” The term “or” is indefinite and, as a result, it is not possible to determine the metes and bounds of this limitation. It is suggested to use standard Markush language; see MPEP 2173.05(h) concerning alternative expressions:

Alternative expressions are permitted if they present no uncertainty or ambiguity with respect to the question of scope or clarity of the claims. One acceptable form of alternative expression, which is commonly referred to as a Markush group, recites members as being “selected from the group consisting of A, B and C.” See *Ex parte Markush*, 1925 C.D. 126 (Comm’r Pat. 1925). When materials recited in a claim are so related as to constitute a proper Markush group, they may be recited in the conventional manner, or alternatively. For example, if “wherein R is a material selected from the group consisting of A, B, C and D” is a proper limitation, then “wherein R is A, B, C or D” shall also be considered proper.

Therefore, claims 6 and 7 and all dependent claims are rejected under 35 U.S.C. 112, second paragraph.

D. The phrase “The combination of claim 8 selected from compounds and their pharmaceutically-acceptable salts, of the group consisting of ...” in claim 1 is vague and indefinite. For example, in claim 7 applicants state “the combination of claim 6 wherein A is selected from” but in claim 7 the “subject” of the claim i.e., the equivalent of “wherein A” seems to have been omitted. What is being “selected” in claim 8? Should it read “The combination of claim 8 wherein A is selected from compounds and their pharmaceutically acceptable salts”? Should it read “The combination of claim 8 wherein the cyclooxygenase-2 inhibitor is selected from compounds and their pharmaceutically acceptable salts”? Should it read “The combination of claim 8 wherein the leukotriene

B4 receptor antagonist is selected from compounds and their pharmaceutically acceptable salts”? Should it read “The combination of claim 8 wherein both the leukotriene B4 receptor antagonist AND the cyclooxygenase-2 inhibitor is selected from compounds and their pharmaceutically acceptable salts”? Applicants are requested to clarify and/or correct. Therefore, claims 8 and all dependent claims are rejected under 35 U.S.C. 112, second paragraph.

### *Claims Rejections - 35 U.S.C. 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

14. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Buchmann et al (US Pat. No. 5,559,134) (Filing Date is **March 23, 1995**; Date of Patent is **September 24, 1996**).

For *claim 1*, Buchmann et al discloses a discloses “new leukotriene-B<sub>4</sub> derivatives [antagonists] ... used in combination ... with cyclooxygenase inhibitors (see Buchmann et al, page column 7, lines 58-65; see also title), which anticipates claim 1.

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15. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Buchmann et al (WO94/04522) (Publication Date is **March 3,1994**) (Please note: a translation will be provided when one becomes available).

For *claim 1*, Buchmann et al discloses a discloses “new leukotriene-B4 derivatives ... used in combination ... with cyclooxygenase inhibitors (see Buchmann et al, page column 11, lines 58-65), which anticipates claim 1.

***Claim Rejections - 35 USC § 103***

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

17. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

18. Claims 1-4 and 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ducharme et al (US Pat. No. 5,474,995) (Filing Date is **January 10, 1994**; Date of Patent is **December 12, 1995**) (IDS Reference Number 60) and Rainsford, K. D. (Rainsford, K. D. "Leukotrienes in the pathogenesis of NSAID-induced gastric and intestinal mucosal damage" *Agents and Actions* **1993**, 39(Spec. Conf. Issue), C24-C26).

For *claims 1-4 and 6-9*, Ducharme et al teaches cyclooxygenase-2 inhibitors and pharmaceutical compositions thereof with compounds of Formula I (see Ducharme et al i.e., "1 of 2", Summary of Invention; see also Ducharme et al "2 of 2", showing various compounds that fall within the scope of Formula I). For example, Ducharme et al teaches a Cox-2 inhibitory (see Ducharme et al, "2 of 2", page 3, RN 157671-80-2) with the same formula as that claimed by applicants in Formula I of claim 2 wherein R<sup>2</sup> is an methyl, A is a furan ring (i.e., furyl), R<sup>1</sup> is a phenyl substituted with a fluoro, and R<sup>3</sup> is a hydrido (Please note that other examples also exist as shown throughout Ducharme et al, "2 of 2"). Ducharme et al also teaches that the above compounds of formula I "will be useful as a partial or complete substitute for conventional NSAID's in preparations wherein they are presently co-administered with other agents or ingredients" (see Ducharme et al, "1 of 2", column 7, lines 65-67).

The prior art teachings of Ducharme et al differ from the claimed invention as follows:

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For **claim 1-4 and 6-9**, Ducharme et al is deficient in that although it states that the Cox-2 inhibitors of formula I “will be useful as a partial or complete substitute for conventional NSAID’s in preparations wherein they are presently co-administered with other agents or ingredients” (see Ducharme et al, “1 of 2”, column 7, lines 65-67), Ducharme et al does not explicitly state that NSAID’s are presently co-administered with the leukotriene B<sub>4</sub> antagonists disclosed by applicants. Hence, Ducharme et al is deficient in that it does not teach that the Cox-2 inhibitors of formula I “will be useful” as “substitutes” for NSAID’s in preparations where NSAID’s and leukotriene B<sub>4</sub> antagonists are co-administered, which would make the required “combination” of Cox-2 inhibitors and leukotriene B<sub>4</sub> antagonists.

However, Rainsford teaches that the leukotriene B<sub>4</sub> receptor antagonist, MK-886, can be beneficially co-administered with NSAIDs (see Rainsford, abstract) (“Gastric and intestinal mucosal lesions by NSAIDs were prevented by both prior (2-5 h) + 0.25 or 0 h oral dosing of the 5-lipoxygenase inhibitor, MK-886”, which are identical to figure 2 and similar to figure 10 of the specification). Hence, the combined teachings of Ducharme et al and Rainsford would teach a “combination” of Cox-2 inhibitors of formula I (i.e., Cox-2 inhibitors are “substituted” for the NSAIDs) with leukotriene B<sub>4</sub> receptor antagonists like MK-886. Furthermore, it would have been obvious to use other “known” Cox-2 and Leukotriene B<sub>4</sub> antagonists as outlined in claims 4, 8 and 9 because they would have the same effect i.e., they would also be Leukotriene B<sub>4</sub> antagonists or Cox-2 inhibitors and thus would have the same therapeutic value when used in combination.

It would have been obvious to one skilled in the art at the time the invention was made to "substitute" the compounds of formula I as taught by Ducharme et al for the NSAIDs in the preparations containing both NSAIDs and leukotriene B<sub>4</sub> antagonists i.e., MK-886 as taught by Rainsford because Ducharme explicitly states that "compounds of formula I, will be useful as a partial or complete substitute for conventional NSAID's in preparations wherein they are presently co-administered with other agents or ingredients" (see Ducharme et al, column 7, lines 65-67). Furthermore, one of ordinary skill in the art would have been motivated to use the Cox-2 inhibitors and Leukotriene B<sub>4</sub> inhibitors to further lower the gastric mucosal lesions that occur with NSAIDs, while still maintaining the therapeutic effects (see Ducharme et al, column 7, lines 50-65) ("By virtue of its high cyclooxygenase-2 (COX-2) activity and/or its selectivity for cyclooxygenase-2 over cyclooxygenase-1 (COX-1) as defined above, compounds of formula I will prove useful as an alternative to conventional non-steroidal anti-inflammatory drugs (NSAID'S) particularly where such non-steroidal anti-inflammatory drugs may be contra-indicated such as in patients with peptic ulcers").

### ***Double Patenting***

19. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper time wise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*,



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686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

20. A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b). Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

21. Claims 1-4 and 6-9 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-22 of U.S. Patent No. 6,136,830. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the referenced patent are essentially drawn to same type of "combinations" of therapeutic compounds as the present application. For example, U.S. Patent No. 6,136,830 claims "combinations of a cyclooxygenase-2 inhibitor and a 5-lipoxygenase inhibitor" (see U.S. Patent No. 6,136,830, claim 1) whereas the present application claims "combination[s] ... of a cyclooxygenase-2 inhibitor and a leukotriene B<sub>4</sub> receptor antagonist" (see present application, claim 1). However, applicants claim in many cases the same compounds for both "combinations" (see claim 2 of the U.S. Patent No. 6,136,830 wherein "Bayer Bay-x-1005" is claimed as a 5-lipoxygenase inhibitor; see also claim 3 of the present application wherein the same "Bayer Bay-x-1005" compound is claimed as a leukotriene B<sub>4</sub> receptor antagonist;

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furthermore, both applications claim compounds with general formula I wherein A is a pyrazolyl as the Cox-2 inhibitor i.e., see claim 2 of U.S. Patent No. 6,136,830 and claim 7 of the present application. Accordingly it is deemed that the inventions claimed herein and that of the patent are obvious variants of each other.

*Status of Claims/Conclusion*

22. No claims are allowed.

23. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

24. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jon D Epperson whose telephone number is (703) 308-2423. The examiner can normally be reached Monday-Friday from 9:00 to 5:30.

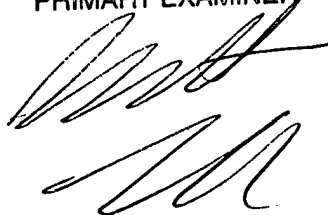
25. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Wang can be reached on (703) 306-3217. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9307 for After Final communications.

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26. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-2439.

Jon D. Epperson, Ph.D.  
November 14, 2002

BENNETT CELSA  
PRIMARY EXAMINER

A handwritten signature in black ink, appearing to be 'Bennett Celsa', written over the printed name and title.